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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/649,092	08/28/2000	Masato Karaiwa	HIR-115	7797

7590 12/02/2002

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EXAMINER
JACKSON, MONIQUE R

ART UNIT	PAPER NUMBER
1773	9

DATE MAILED: 12/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

A89

Office Action Summary	Application No.	Applicant(s)	
	09/649,092	KARAIWA, MASATO	
	Examiner	Art Unit	
	Monique R Jackson	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 August 2002 and 16 September 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. The amendments filed 8/26/02 and 9/16/02 have been entered. Claims 1-6 are pending in the application.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Amendment

3. The Examiner notes that though the amendment stated that the "Applicant proffers an amended specification reflecting amendments changing a surface layer (A) formulation to a weight percent in the disclosure and Table 2", no amended specification was received and hence the specification and the amended claims currently conflict with one another with regards to the ratios.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 recites the limitation "ratio (a) = 5 to 62.5wt%, and ratio (b) = 5 to 62.5wt%, however the instant disclosure at the time of filing does not support the endpoint 62.5wt%. The original disclosure at the time of filing states that the ratio (a) of the oily softening agent to the amorphous component or PE and amorphous component in the thermoplastic

elastomer (A) = 5 to 200 wt% and likewise, the ratio (b) of the oily softening agent to the amorphous component or PE and amorphous component in the thermoplastic elastomer (B) = 5 to 200wt%, wherein the Examiner also notes that this limitation is unclear given that a ratio is typically a dimensionless value and is not provided with any units. Further, at Page 4, lines 11-21, the original disclosure provides wt parts for the various components as follows: preferably 10 to 60 wt parts of a polyolefin resin (X), 30 to 70 wt parts of an ethylene-α-olefin-non-conjugated polyene copolymer rubber (Y) and **5 to 50 wt** parts of an oily softening agent (Z), the total of X, Y and Z being 100wt parts. Though the Applicant states that these weight parts provide support for the amended ratio range based on 100 weight parts, it is noted that the instant claims do not recite "based on 100 wt parts" and hence it appears that the claims now encompass a weight parts range for the oily content that was not previously presented.

6. Claims 1-6 remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation:

"comprising a **polyolefinic thermoplastic elastomer** (B) containing an oily softening agent which is laminated on the surface layer wherein the ratio (a) of the oily softening agent to **an amorphous component, or if polyethylene is incorporated, to the total of an amorphous component and polyethylene** in said thermoplastic elastomer (A) and the ratio (b) of the oily softening agent to **an amorphous component, or if polyethylene is incorporated, to the total of an amorphous component and polyethylene** in said thermoplastic elastomer (B) satisfy the following requisites;

ratio (a) ≥ ratio (b),

ratio(a) = 5 to 62.5 wt.%, and

ratio(b) = 5 to 62.5wt.%"

wherein the claim limitation is unclear for the following reasons:

a. The claims recites the term "polyolefinic thermoplastic elastomer" however it is unclear whether this term is meant to refer to "thermoplastic polyolefin elastomers" or TPO's as referred to in the art or to any thermoplastic elastomer formed in part by polyolefinic monomers given that the instant disclosure at the time of filing recites examples of the "polyolefinic thermoplastic elastomer" which are referred to as "TPO-a", "TPO-b", and "TPO-c", that actually include EPDM which is not a "TPO" as the term is recognized in the art.

b. The claim recites the limitation "an amorphous component", however given that the claims and the specification does not clearly define the term, it is unclear what is meant to be encompassed by the term, "an amorphous component". While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). The Examiner notes that the specification at Page 18, lines 14-23, recites that the term "amorphous component...indicates the total quantity of the ethylene-α-olefin-non-conjugated polyene copolymer rubber (Y), ...and the oily softening agent (Z)" and that when a "hydrocarbon type rubbery material that is not crosslinked with peroxide, such as polyisobutylene, butyl rubber and propylene-ethylene copolymer, the amorphous component indicates the total quantity obtained by adding these amounts." Though this is not a clear definition and the fact that the data presented in the tables do not

incorporate any of the polypropylene component in terms of these ratios though polypropylene is similar to propylene-ethylene which is listed by the Applicant as an example of a "hydrocarbon type rubbery material" and unless it is 100% crystalline comprises "an amorphous component", it appears that the Applicant is utilizing this term to mean something other than the accepted meaning that refers to the non-crystalline component of a polymer.

c. The claim recites that the ratios (a) and (b) equal "5 to 62.5wt.%" however these limitations are unclear given that the ratios (a) and (b) are ratios with respect to the oily softening agent to the amorphous component in elastomer (A) and (B), respectively, and hence should be expressed in terms of a dimensionless value or an amount of oily softening agent to an amount of amorphous component, ie. "5 to 62.5wt% oily softening agent based on 100wt% amorphous component", etc. The limitations are further unclear given that the specification discloses that the ratios are 5 to 200wt% wherein considering the amount of the softening agent is part of the overall amount of amorphous component, the "ratios" (a) and (b) could not exceed 100% hence it is not clear that these values are actually "ratios" at all.

c. Claim 2 also recites similar limitations in terms of the ratios(a') and (b') which are unclear for similar reasons as discussed above and further it is noted that the equation in Claim 2 is in conflict with the equation in the parent Claim 1 given that based on the ratio definitions "ratio (a')" in Claim 2 is the same as "ratio (a)" in Claim 1 "if polyethylene is incorporated" and "ratio (b')" in Claim 2 is the same as "ratio (b)" in Claim 1 "if polyethylene is incorporated". Therefore, the equation of Claim 2 includes values that do not satisfy the equation of Claim 1,

namely the range from 0.8 X ratio (b') to less than ratio (b'), given that ratio (a') is the same as ratio (a) which must be greater than or equal to ratio (b) which is the same as ratio (b') (a'=a≥b=b'), hence ratio (a') must be greater than or equal to ratio (b') not 0.8 X ratio (b') which would be less than ratio (b').

Claim Rejections - 35 USC § 102

7. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Mori et al (USPN 5,766,703) based on the assumption that ratio(a) and (b) are actually weight percentages based on the total weight content of the oily, the elastomer and the polyolefin for the reasons recited in the prior office action wherein the Examiner takes the position that though Mori does not specifically utilize the same terms as in the instant application, i.e. "*polyolefinic thermoplastic elastomer, oily softening agents, and an amorphous content*", the disclosed examples taught by Mori et al utilize the same materials as instantly claimed in amounts that fall within the instantly claimed wt % values and hence anticipates the instantly claimed invention (Col. 1, line 14 – Col. 3, line 30; Examples; Tables 1-10.)

Claim Rejections - 35 USC § 103

8. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al (USPN 5,766,703) for the reasons recited in the prior office action.

Response to Arguments

9. Applicant's arguments filed 8/26/02 have been fully considered but they are not persuasive and/or moot in view of the new ground(s) of rejection. The Applicant first argues that "polypropylene is a non-rubbery resin" and "clearly, polypropylene is not an amorphous component and is therefore properly excluded from the tables and claims" in term of the

"amorphous component." However as stated above, unless polypropylene is 100% crystalline, it does have an "amorphous component" as the term is accepted in the art and hence the 112 rejection is proper given that there is not clear definition for the term "an amorphous component" in the claims or the instant disclosure. The Applicant also argues that the "62.5wt.% based on 100wt%" is supported by the at page 4 of the specification however it is noted that the instant claims do not recite that the values are based on 100wt% and given that a ratio typically does not have units, the claims are indefinite. With regards to Applicant's arguments that the rejection over Mori is improper because TPO's are not EPDM's, it is noted that the instant disclosure at the time of filing utilizes "polyolefinic thermoplastic elastomers" wherein the only place that the disclosure utilizes the term TPO is with regards to naming the examples, i.e. "TPO-a", "TPO-b" and "TPO-c", all of which appear to include EPDM. The Applicant argues that Mori teaches the use of thermosettable EPDM not a thermoplastic elastomer however the Examiner notes that EPDM is a thermoplastic elastomer that is crosslinkable just as the instant invention teaches that the incorporation of a crosslinking agent into the polyolefinic thermoplastic elastomer composition. Therefore, Applicant's arguments with regards to TPO and EPDM are unclear. The Applicant also argues that Mori does not teach an amorphous content or that ratios effect the desirable features of the presently claimed invention, however, though Mori does not utilize the same terminology as the instant invention, the invention taught by Mori utilizes the same materials as the instant invention with examples that have amounts that fall within the instantly claimed ranges and hence reads on the instantly claimed invention particularly given that the alleged "desirable features" are not part of the claimed invention.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Monique R. Jackson
Patent Examiner
Technology Center 1700
November 30, 2002